Manitoba Monthly Surveillance Unit Report
Reported up to December 31, 2010

Highlights:

1. **Antimicrobial Resistant Organisms**
   Together Methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* (*C. difficile*) accounted for 43% of all non-STBBI related communicable diseases reported to Manitoba Health during December 2010.

   - The number of reported cases of MRSA was above the statistically expected range in December 2010 – 284 positive lab-confirmed cases reported; less than 245 expected in an average month.

   The data reveal that there are increased numbers of MRSA and Vancomycin-resistant *Enterococcus* (VRE) in 2010 compared to 2009. Since becoming a reportable disease in Manitoba in 1999, the number of MRSA cases has been increasing every year, especially in northern regions. The increased number of VRE cases in 2010 is attributable to hospital-related VRE outbreaks reported this year.

2. **Sexually Transmitted & Blood-Borne Infections (STBBI)**
   There were 532 reported cases of sexually transmitted infections (chlamydia, gonorrhoea, and syphilis) in December 2010:
   - 453 reported cases of chlamydia (CT) only
   - 37 reported cases of gonorrhoea (GC) only
   - 37 reported co-infections of CT and GC and
   - 5 reported cases of syphilis

   Chlamydia has the highest incidence of reported STBBI. Females between the ages of 15 and 24 years comprised 45% of all reported chlamydia cases in the province.

   Syphilis cases include both infectious and non-infectious cases, as well as those requiring further follow-up to determine their status.

   In December 2010, there were no cases of Hepatitis B virus (HBV), 16 cases of Hepatitis C virus (HCV) and 9 cases of HIV newly reported in Manitoba.

3. **Other Communicable Diseases**
   The number of reported cases in December 2010 was within or below the statistically expected range for these reported communicable diseases with the exception of the following diseases:

   - Diphyllobothrium: 2 positive lab-confirmed cases reported; less than 2 expected in an average month.

- Neisseria meningitidis (other sterile site): 2 positive lab-confirmed cases reported; less than 2 expected in an average month.
- Pneumococcal septicemia: 21 positive lab-confirmed cases reported; less than 14 expected in an average month.

The expected number of cases and range is statistically based on the number of reported cases during November ('05-'09), December ('05-'09), and January ('06-'10).

The data reveal that there are increased numbers of verotoxigenic E. coli, Shigella, and Pertussis in 2010 compared to 2009. These increases are attributable to the occurrence of isolated outbreaks reported to Manitoba Health.

Explanatory Notes:

General:

Each monthly communicable disease report includes the number of cases of notifiable communicable diseases reported by lab or health provider during each individual month. Data for the monthly summary are aggregated based on the earliest of: symptom onset date, specimen collection date, or report date. For the majority of cases, the date used will be the specimen collection date as symptom onset date is frequently not recorded. Some discrepancy of numbers may be based on reporting delays.

The observed numbers of cases are compared to the statistically expected range for each reportable communicable disease. This involves comparing the current month's case counts to the average case counts for the same month, one month subsequent and one month prior for the previous five years. These same months over the five years are used to determine the expected range of cases using the statistical calculation of standard deviation. Using this specific monthly pattern allows for adjustment within the statistics for both seasonality and cyclical disease patterns.

The year-to-date case counts are based on the calendar year.

The disease data reported in the monthly report has not been analyzed for severity or associated deaths at this time.

Disease specific information:

Methicillin-resistant *Staphylococcus aureus* (MRSA) positive results within Manitoba include both individuals who are symptomatic of infection and colonized individuals who have no symptoms and are mostly diagnosed during admission screening activities at facilities. If facilities increase their screening activities, it would usually result in a rise in colonized MRSA cases.

A new case of Hepatitis C Virus (HCV) infection is defined as a first positive test for an identifiable individual.

A new case of Human Immunodeficiency Virus (HIV) infection is defined as a positive test with a unique code that has not been previously linked to a positive test result in Manitoba. Positive HIV tests included in this month's statistics include both nominal and non-nominal testing results.

The number of Tuberculosis cases year-to-date may not equal the sum of cases reported for each month of this year. As new test results are received, there may be a change in diagnosis. Occasionally, diagnosis dates are updated, which also contributes to total numbers varying from month to month.

SUMMARY OF COMMUNICABLE DISEASE FOR December 2010

		MONTHLY TOTAL				YEAR-TO-DATE	
ICD9	DISEASE/INFECTION	2009	2010	Expected*	Ex. Range**	2009	2010
006.9	AMEBIASIS	3	2	3	0-7	43	31
022	ANTHRAX				***		
127.0	ASCARIASIS			0	0-2		1
005.8	B. CEREUS			0	0-1	5	
320.1	BAC. MENINGITIS - PNEUM			0	0-1	4	
320.7	BAC.MENINGITIS-LISTERIA				***		
038.0	BETA STREP SEPTICEMIA	16	7		***	157	139
116.0	BLASTOMYCOSIS	2			***	9	6
005.1	BOTULISM				***		
023	BRUCELLOSIS			0	0-1	1	1
005.2	C. PERFRINGENS			1	0-2	3	1
008.43	CAMPYLOBACTER	11	8	14	8-20	234	240
558.2	CLOSTRIDIUM DIFFICILE	78	69		***	844	822
046.1	CREUTZFELD-JACOB DISEASE				***	3	
007.8	CRYPTOSPORIDIOSIS		1	2	0-6	36	23
061.0	DENGUE FEVER			0	0-1		
065.4	DENGUE HEMORRHAGIC FEVER			0	0-0		
V02.4	DIPH.CARRIERS			0	0-1	3	9
032	DIPHTHERIA CASES	1		0	0-1	1	4
123.4	DIPHYLLOBOTHRIUM SPP	1	2	0	0-1	5	10
008.0	E. COLI-VEROTOXIGENIC	2	6	3	0-7	44	90
054.3	ENCEPHALITIS			0	0-1		
005.9	FOOD POISONING OTHER			0	0-1		
007.1	GIARDIA LAMBLIA	9	7	8	1-15	132	117
320.0	H.INFLUENZAE (CSF)			0	0-1		1
041.5	H.INFLUENZAE (OTHER STERILE)			0	0-1	3	
041.59	HAEM. INFLUENZAE (non-B)				***	1	1
480.8	HANTA VIRUS			0	0-0		
283.11	HEMOLYTIC UREMIC SYNDROME			0	0-0		1
070.1	HEPATITIS A			1	0-3	12	7
070.3	HEPATITIS B			0	0-1	5	1
070.51	HEPATITIS C	33	16	30	17-43	342	317
487.1A	INFLUENZA A****		309		***	98	359
487.1B	INFLUENZA B		1		***	38	1
482.83	LEGIONELLA		1	0	0-1		6
085.9	LEISHMANIASIS			0	0-0		
030.9	LEPROSY			0	0-0		
027.0	LISTERIA MONOCYTOGENES			0	0-1	2	4
088.81	LYME DISEASE			0	0-1	1	3
084	MALARIA	3	1	1	0-2	14	14
055.9	MEASLES			0	0-0		1
036.0	MENINGOCOCCAL CSF	1	1	0	0-1	1	1
036.82	MENINGOCOCCAL ARTHROPATHY				***		3
036.2	MENINGOCOCCEMIA BLOOD	1		0	0-1	1	6
B95.6	MRSA	256	284	152	60-244	2806	3425
072.9	MUMPS			0	0-1	5	2
036.89	N.MENINGITIDIS OTHER		2	0	0-1	7	2
728.86	NECROTIZING FASCIITIS	2	1	1	0-4	5	12
729.1	NECROTIZING MYOSITIS				***		
323.9	OTHER ENCEPHALITIS			0	0-0		
033.1	PARAPERTUSSIS				***	2	
033.0	PERTUSSIS	1	4	3	0-11	30	59
038.2	PNEUM. SEPTICEMIA	5	21	8	3-13	122	161
073.9	PSITTACOSIS			0	0-0		

* Mean of 15 month totals, from previous, comparable and subsequent months for the past 5 years.

** Mean +/- 2 standard deviations of the mean.

*** Data collected for less than 5 years.

**** Excludes Wave 1 and 2 cases reported during the 2009 Influenza A H1N1 pandemic. There were no cases of pandemic H1N1 in December 2010.

SUMMARY OF COMMUNICABLE DISEASE FOR December 2010

		MONTHLY TOTAL				YEAR-TO-DATE	
ICD9	DISEASE/INFECTION	2009	2010	Expected*	Ex. Range**	2009	2010
083.0	Q FEVER	1		0	0-0	2	
082.0	RICKETTSIA RICKETTSII				***		1
056.9	RUBELLA			0	0-0	2	3
771.0	RUBELLA CONGENTIAL			0	0-0		
041.2	S.PNEUM.OTHER	2		0	0-1	10	13
003.0	SALMONELLA	23	20	15	1-29	267	233
079.82	SARS (CORONAVIRUS)				***		
120	SCHISTOSOMIASIS			0	0-1	1	
079.99	SEVERE RESPIRATORY ILLNESS				***		
004	SHIGELLOSIS	4	3	1	0-3	24	52
050.9	SMALLPOX				***		
005.0	STAPH FOOD POISON			0	0-0		
785.5	STAPH TOXIC SHOCK				***		
481.9	STREP PNEUMONIA - PR			0	0-1		
041.1	STREP PYOGENES - OTHER	2	3		***	96	87
711.0	STREP.PNEUM.ARTHRITIS			0	0-0		
580.0	STREPT GLOMERULONEPHRITIS			0	0-0		
040.89	STREPT TOXIC SHOCK	1		0	0-1	1	
481	STREPTOCOCCUS PNEUMONIAE			0	0-0		
127.2	STRONGYLOIDES			1	0-5	11	15
037	TETANUS			0	0-0		1
130.9	TOXOPLASMOSIS			0	0-1	1	4
124	TRICHINOSIS			0	0-0		2
086	TRYPANOSOMA CRUZI			0	0-0		3
013	TUBERCULOSIS - NON-RESP.		1	2	0-4	28	33
010	TUBERCULOSIS - PRIM.		1	1	0-3	9	8
011	TUBERCULOSIS - RESP	7	5	6	0-12	119	93
021.9	TULAREMIA			0	0-1	1	1
002.0	TYPHOID		1	0	0-1	3	6
081.9	TYPHUS			0	0-0		
B96.8	VANCOMYCIN R. ENTEROCOCCI	5	38		***	93	342
005.4	VIBRIO PARAHAEMOLYTICUS		1		***		3
070.59	VIRAL HEP. OTHER		1		***		6
B95.7	VRSA			0	0-0		
062.1	W. EQUINE ENCEPHALITIS			0	0-0		
066.41	WNV NEUROLOGICAL				***		
008.44	YERSINIA ENTEROCOLITICA		1	1	0-2	8	7
		470	**818**			**5695**	**6794**

* Mean of 15 month totals, from previous, comparable and subsequent months for the past 5 years.
** Mean +/- 2 standard deviations of the mean.
*** Data collected for less than 5 years.

SUMMARY OF COMMUNICABLE DISEASE BY AGE AND GENDER FOR DECEMBER 2010

		<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-49		50-59		60-69		70-79		80+		Missing	Total
ICD9	Disease Name	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	Age/Gender	
006.9	AMEBIASIS														1				1										2
036.0	BAC.MGTS-NMGTS(MGCCL MGTS																	1											1
038.0	BETA STREP SEPTICEMIA													1					1			1	1			3			7
008.43	CAMPYLOBACTER					1			1									1	1	1	1			2					8
558.2	CLOSTRIDIUM DIFFICILE												3	2		4	2	3	2	5	3	6	5	8	2	11	13		69
007.8	CRYPTOSPORIDIOSIS									1																			1
123.4	DIPHYLLOBOTHRIUM																1				1								2
008.0	E. COLI 0157					1						1	1							2		1							6
007.1	GIARDIA LAMBLIA				1			1										3	1		1								7
070.51	HEPATITIS C										1	1	1		1	1	2		4		3				1			1	16
070.59	HEPATITIS OTHER (VIRAL)										1																		1
487.1A	INFLUENZA A	7	8	18	16	11	11	16	5	5	4	10	3	13	6	18	12	17	13	11	16	9	6	8	8	41	17		309
487.1B	INFLUENZA B		1																										1
482.83	LEGIONELLA																			1									1
084	MALARIA																		1										1
B95.6	MRSA	6	4	17	19	9	9	8	8	11	5	9	10	10	8	17	14	15	8	16	18	9	9	4	13	15	13		284
728.86	NECROTIZING FASCIITIS																	1											1
036.89	NEISSERIA MGTS(0ther)																	1							1				2
033.0	PERTUSSIS	2	1			1																							4
038.2	PNEUM. SEPTICEMIA	1	1					1						1			3		1	2	1	2	3	1	2		2		21
003.0	SALMONELLA		1	1		2						1		2		1		2		1	5	1		1		2			20
004	SHIGELLOSIS					1	1										1												3
041.1	STREP PYOGENES - OTHER ST															1					2								3
013	TUBERCULOSIS - NON-RESP.															1													1
010	TUBERCULOSIS - PRIM.		1																										1
011	TUBERCULOSIS - RESP					1						1	1	1					1										5
002.0	TYPHOID								1																				1
B96.8	VANCOMYCIN RES. ENTER.														2	2	3	1	1	7	2	2	4	2	2	4	6		38
005.4	VIBRIO PARAHAEMOLYTICUS																	1											1
008.44	YERSINIA ENTEROCOLITICA			1																									1
		16	17	37	36	27	21	26	15	17	11	23	19	30	18	45	38	46	35	46	53	31	28	26	29	76	51	1	818

SUMMARY OF COMMUNICABLE DISEASE BY REGION (RHA) FOR DECEMBER 2010

ICD9	Disease/Infection	Winnipeg	Brandon	N. Eastman		S. Eastman		Interlake		Central		Assiniboine		Parkland		Norman		Burntwood		Churchill	OOP**	Missing	TOTAL
*Case Referred to:**				*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*	*F*	*P*				
006.9	AMEBIASIS	2																					2
036.0	BAC.MGTS-NMGTS(MGCCL MGTS	1																					1
038.0	BETA STREP SEPTICEMIA	6																1					7
008.43	CAMPYLOBACTER	2	1		1		1		1		1								1				8
558.2	CLOSTRIDIUM DIFFICILE	44	5		1		1		5		4		6		1			1	1				69
007.8	CRYPTOSPORIDIOSIS										1												1
123.4	DIPHYLLOBOTHRIUM	2																					2
008.0	E. COLI 0157	3			1						2												6
007.1	GIARDIA LAMBLIA	3	2												1		1						7
070.51	HEPATITIS C	13	1						1								1						16
070.59	HEPATITIS OTHER (VIRAL)	1																					1
487.1A	INFLUENZA A	115	1	17	7		7	9	15	1	14		7	3	8	6	3	63	30	2	1		309
487.1B	INFLUENZA B	1																					1
482.83	LEGIONELLA				1																		1
084	MALARIA	1																					1
B95.6	MRSA	103	3	6	2		5	2	4		9	1	3	3	6	2	9	117	8			1	284
728.86	NECROTIZING FASCIITIS																	1					1
036.89	NEISSERIA MGTS(0ther)		1															1					2
033.0	PERTUSSIS	3							1														4
038.2	PNEUM. SEPTICEMIA	9	1	1	1								2				3	3	1				21
003.0	SALMONELLA	8		5	1				2				2		2								20
004	SHIGELLOSIS	1																2					3
041.1	STREP PYOGENES - OTHER ST	2																	1				3
013	TUBERCULOSIS - NON-RESP.	1																					1
010	TUBERCULOSIS - PRIM.																	1					1
011	TUBERCULOSIS - RESP	3																2					5
002.0	TYPHOID						1																1
B96.8	VANCOMYCIN RES. ENTER.	28			2		3	1	2		2												38
005.4	VIBRIO PARAHAEMOLYTICUS										1												1
008.44	YERSINIA ENTEROCOLITICA	1																					1
		353	15	29	17		18	12	31	1	34	1	20	6	18	8	17	192	42	2	1	1	818

* F=Federal Jurisdiction (First Nations and Inuit Health); P=Provincial Jurisdiction

** OOP=Out of Province

STBBI Infection Summary Report - December 2010

	MONTHLY TOTAL		YEAR-TO-DATE	
DISEASE/INFECTION	**2009**	**2010**	**2009**	**2010**
All Chlamydia Infections	409	490	6347	6451
All Gonorrhea Infections (including PRNG)	48	74	1038	996
All Syphilis Infections*	2	5	47	64
Gonorrhea & Chlamydia Co-infections	13	37	426	451
HIV	9	9	106	125

Total Number of STBBI Cases by Age and Gender - December 2010

	<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-49		50-59		60-69		70-79		80+		Missing	
Disease Name	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**age/gender**	**TOTAL**
Chlamydia Only Cases							5	2	86	37	119	60	42	28	21	30	11	7	1	3		1						453
Gonorrhea Only Cases							1	1		3	4	4	2	5	3	5	3	4		1		1						37
Syphilis Only Cases									1		1			1			1	1										5
GC and CT Cases							1		9	6	3	7	4	2	1	2	2											37
TOTAL							7	3	96	46	127	71	48	36	25	37	17	12	1	4		2						532
HIV												1	1		1	1		3		2								9

Regional STBBI Distribution - December 2010

Disease/Infection	**Winnipeg**	**Brandon**	**N. Eastman**		**S. Eastman**		**Interlake**		**Central**		**Assiniboine**		**Parkland**		**Norman**		**Burntwood**		**Churchill**	**OOP*** **	**Missing**	**TOTAL**
Case Referred to: **			***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***	***F***	***P***				
All Chlamydia Infections	263	25	10	7		8	3	11		17		10	4	11	5	28	59	24		4	1	490
All Gonorrhea Infections	30		2	5			2			1			1			1	22	9		1		74
All Syphilis Infections	5																					5
GC and CT Infections	11		2	2			1									1	14	5		1		37

* Syphilis cases include both infectious and non-infectious cases, as well as those requiring further follow-up to determine their status.
** F=Federal Jurisdiction (First Nations and Inuit Health); P=Provincial Jurisdiction
*** OOP=Out of Province